

CLAIMS

What is claimed is:

1. A laminated polymer comprised of at least two layers of transparent polymer with adjacent polymer layers separated by a transparent solid non-glass interlayer or an air cavity, wherein at least one said transparent non-glass interlayer or said air cavity contains a device comprised of at least one element selected from the group consisting of solid state lighting, heat sensors, light sensors, pressure sensors, thin film capacitance sensors, photovoltaic cells, thin film batteries, liquid crystal display films, suspended particle device films, and transparent electrical conductors.
2. The laminated polymer of Claim 1, comprised of two layers of transparent polymer separated by a transparent solid non-glass interlayer.
3. The laminated polymer of Claims 1 or 2, wherein said device is comprised of solid state lighting.
4. The laminated polymer of Claim 3, wherein said solid state lighting is in the form of at least one light emitting diode.
5. The laminated polymer of Claim 3, wherein said solid state lighting is in the form of at least one organic light emitting diode.
6. The laminated polymer of Claim 3, wherein said solid state lighting is in the form of an electroluminescent film.
7. The laminated polymer of Claim 3, wherein said device is further comprised of transparent electrical conductors to provide means to apply an activating voltage to said solid state lighting.
8. The laminated polymer of Claim 7, wherein said transparent electrical conductors are indium tin oxide films.
9. The laminated polymer of Claim 7, wherein said device is further comprised of a microprocessor chip that is programmed to control said solid state lighting and to cause said solid state lighting to display a sequence of images.
10. The laminated polymer of Claim 9, wherein said microprocessor chip is programmed to cause said solid state lighting to display text.
11. The laminated polymer of Claim 7, wherein there is provided externally to said laminated polymer a microprocessor chip that is programmed to control said solid state lighting and to cause said solid state lighting to display a sequence of images.

12. The laminated polymer of Claim 11, wherein said microprocessor chip is programmed to cause said solid state lighting to display text.

5 13. The laminated polymer of Claim 3, wherein the laminated polymer is flexible and can be adapted to various shapes and forms.

14. The laminated polymer of Claim 13, wherein said solid state lighting is in the form of at least one light emitting diode.

15. The laminated polymer of Claim 13, wherein said solid state lighting is in the form of at least one organic light emitting diode.